What is claimed is:

1.   A system for verifying a digital signature,
5 comprising:

a first computer having a certificate and a signed
message;

a second computer configured to receive the
certificate and the signed message; and

10   a third computer configured to receive the
certificate and the signed message from the second
computer for a validation request, to validate the
certificate and to generate a certificate validation
statement in response thereto, and to provide an
15 acknowledgement and a public key to the second computer,
the acknowledgement comprising in part the certificate
validation statement, the signed message, a first proof
portion having a confirmation associated with the
certificate validation statement and the signed message in
20 combination, and a second proof portion having a signed
digest having the confirmation as part of a set of
confirmations.

2.   The system of claim 1 further comprising a fourth
25 computer configured to receive the certificate, the signed
message, the acknowledgement and the public key.

3.   The system of claim 2 further comprising a
certificate authority configured to provided the
30 certificate to the first computer.

4.   The system of claim 3 wherein the certificate authority is configured to provide validation information to the third computer.

5   5.   A system for verifying a digital signature, comprising:

a plurality of first computers each having a certificate of a set of certificates and a respective signed message signed in association with the certificate;

10   a plurality of second computers in communication with the first computers and configured to receive respective certificates and associated signed messages; and

a third computer in communication with the second computers and configured to receive validation requests

15   for the certificates and the signed messages from the plurality of second computers, the third computer configured to validate the certificates, to generate a certificate validation statements, and to provide each of the second computers an acknowledgement and a public key,

20   the acknowledgement comprising in part a certificate validation statement, the signed message, a first proof portion having a confirmation associated with the certificate validation statement and the signed message in combination, and a second proof portion having a signed

25   digest having the confirmation as part of a set of confirmations for the second computers.

6.   The system of claim 5 further comprising a fourth

30   computer in communication with the third computer and configured to confirm at least a portion of the acknowledgement.

7.   A method for validating a signature of a signed
message corresponding to a certificate, comprising;
        providing validation information to a notary;
        validating the certificate to create a certificate
5 validation;
        generating a confirmation in response to the
certificate validation;
        maintaining a set of confirmations where the
confirmation is an element of the set;
10   generating a digest for the set of confirmations; and
        signing the digest with a private key to create a
signed digest.

8.   The method of claim 7 further comprising:
15   providing the signed digest, the certificate
validation, the confirmation, the signed message and the
set of confirmations in response to receiving the
certificate and the signed message.

20 9.   The method of claim 8 further comprising providing a
public key corresponding to the private key.

10.   The method of claim 7 further comprising:
        signing the confirmation, the set of confirmations
25 and the signed digest configured to provide a digital
signature with a hash chain.

11.   A process for verifying a digital signature of an
associated dated certificate in a system having a
30 certificate authority, a notary and a time stamping
authority, the certificate authority providing the notary
with information on a plurality of dated certificates, the
process comprising:

receiving a time-stamped signed message and a portion of the dated certificate;

using the portion of the dated certificate to locate the dated certificate from among the plurality of dated

5 certificates;

validating the dated certificate as to time, date and non-revoked status;

providing a validation dated certificate and the time-stamped signed message as a status; and

10 signing the status with a private key.

12. The method of claim 11 further comprising sending a public key, the status and the status signed with the private key to an entity requesting validation.

15

13. A signal-bearing medium containing a program which, when executed by a processor in response to receiving a certificate, a signed message corresponding to the certificate and a request for validation, causes execution

20 of a method comprising:

validating the certificate to create a certificate validation;

generating a confirmation in response to the certificate validation;

25 maintaining a set of confirmations where the confirmation is an element of the set;

generating a digest for the set of confirmations; and signing the digest with a private key to create a signed digest.

30

14. A process for verifying a digital signature of an associated dated certificate in a system having a certificate authority and a notary, the certificate

-24-

authority providing the notary with information on a
plurality of dated certificates, the process comprising:

  providing a signed first status, the signed first
status including a message and the dated certificate;

5 providing at least a portion of the dated
certificate;

  using the portion of the dated certificate to locate
the dated certificate from among the plurality of dated
certificates;

10 validating the dated certificate as to date and non-
revoked status;

  providing a validation dated certificate and the
signed first status as an unsigned status;

  adding the unsigned status into a set of statuses for
15 the date; and

  signing the unsigned status with a private key to
provide a signed second status.

15. The process of claim 14 further comprising:
20 generating a digest of the set of statuses;

  providing the digest to a third party for dating and
signing.

16. The process of claim 15 wherein the third party is a
25 certificate authority.